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Date: 25 January 2010

Dear Colleague,

**DETERMINATION AND NOTICE UNDER SPECIAL CONDITION J3 – RESTRICTION OF TRANSMISSION CHARGES: TRANSMISSION INVESTMENT FOR RENEWABLE GENERATION OF THE ELECTRICITY TRANSMISSION LICENCE OF SCOTTISH HYDRO ELECTRIC TRANSMISSION LIMITED (SHTL)**

*Background*

Special Condition J3 of SHTL's Transmission Licence sets out restrictions in relation to the revenue allowances associated with Transmission Investment for Renewable Generation (TIRG). TIRG provides funding to connect a large volume of renewable generation that was not forecast at the time that the relevant price controls were set for the transmission licensees. The TIRG mechanism provides explicit revenue allowances and associated output measures (in Schedule C: "Supplementary provisions to special condition J3" in the transmission licences) for a range of projects related to the connection of renewable generation.

When funding for TIRG was approved in December 2004, it was based on project-specific allowances for four discrete reinforcements<sup>1</sup>. We recognised, however, that it was appropriate to provide flexible funding allowances, in case the allowed TIRG revenue proved inadequate, given the inherently uncertain volume and nature of the new connections. This was achieved through revenue release mechanisms which are set out in the transmission licence.

One of the transmission investment projects included in TIRG, 'Sloy', relates to the construction of Inverarnan Substation on the crossing points of the existing Scottish Power Transmission Limited (SP Transmission) 275kV line to Cruachan and the SHTL 132kV lines running between Killin and Sloy. Schedule C sets out further detail on these funding allowances, defining the nature of relevant "pre-construction, contingency and construction costs", "post-construction revenues", and associated "output measures".

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<sup>1</sup> Several other projects were not considered to be sufficiently certain at the time of TIRG for funding to be approved.

SHETL considers that relevant additional pre-construction costs have been incurred (associated with the pre-construction works) and that relevant amendments to the scope of construction works need to be made, necessary to comply with technical, engineering and planning constraints. SHETL is therefore asking to recover the costs for the additional pre-construction works via an **income adjusting event**, and is seeking to recover the costs for the amendment to the scope of construction works by means of an adjustment to the value of the Sloy project via an **asset value adjusting event**.

On 31 March 2008, SHETL submitted an income adjusting event notice to the Authority, pursuant to Special Condition J3, 4(b), in relation to the transmission investment project 'Sloy' and an asset value adjusting event notice pursuant to Special Condition J3, 6(c) for the same project.

## **Licence provisions**

The following paragraphs summarise the licence provisions in relation to both income adjusting events and asset value adjusting events. The full provisions of the licence can be found on Ofgem's website in the electronic public register<sup>2</sup>.

### *Income Adjusting Events*

Special Condition J3 of SHETL's Transmission Licence sets out the income adjusting event provisions. A TIRG income adjusting event means an event or circumstance occurring in the pre-construction period of the TIRG investment project that the Authority is satisfied causes costs and/or expenses to be incurred or saved in relation to that transmission investment project. Under the licence, the licensee is required to give notice to the Authority where it considers an event has occurred which has materially increased, or is expected to materially increase, the costs of the licensee. These costs need to have been efficiently incurred (or saved) or need to be expected to be efficiently incurred (or saved). In addition, the costs cannot be capable of being recovered under the TIRG revenue allowance. Following consideration of the notice and supporting documentation, the Authority is required to determine whether such an event has occurred and to determine what the income adjustment allowance should be. The Authority has the discretion to determine an allowance that is either the amount requested by the licensee, or a different amount.

Determination by the Authority that an income adjusting event has occurred and the amount of the allowance does not involve an amendment to the licence condition. To give effect to any income adjustment, the Authority must determine the value of the TIRGIncAdj<sup>1</sup> term in the licence, but the value that it takes does not appear within the licence. Therefore, there is no change to the content of the licence, and consequently no requirement to invoke the statutory licence modification procedure. When a determination is made, the Authority must publish a notice stating the income adjustment allowance, giving the reasons for the determination.

### *Asset Value Adjusting Events*

Special Condition J3 of SHETL's Transmission Licence also sets out similar provisions in relation to asset value adjusting events. A 'TIRG asset value adjusting event' means relevant additional preconstruction works or a relevant amendment to the scope of construction works that the Authority is satisfied is expected to cause costs and/or expenses to be incurred (or saved) in relation to a specific transmission investment project. As with the income adjusting event provisions, the licensee shall give notice to the Authority, as soon as is reasonably practicable after the event has occurred, confirming that it considers an event has taken place which has materially increased (or decreased), or is expected to materially increase (or decrease), the costs of the licensee.

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<sup>2</sup> Please see the following link: <http://epr.ofgem.gov.uk/index.php?pk=folder97241>.

The licensee must detail the particulars required by the licence including how it considers the costs have been efficiently incurred, and must confirm that they cannot be recovered under the existing TIRG revenue allowance. Following consideration of the notice and supporting documentation, the Authority shall determine whether such an event has occurred and determine what the asset value adjustment ( $AFFTIRG_t^i$ ) should be. The Authority can determine the adjustment to be either the amount requested by the licensee, or a different amount, at its discretion. The depreciation calculation for the relevant project will be affected by any adjustment to the asset value, such that the associated depreciation term ( $AFFTIRGDepn_t^i$ ) would also need to be adjusted via an Authority determination.

As with a TIRG income adjusting event, determination by the Authority that an 'asset value adjusting event' has occurred and the amount of the adjustment does not involve an amendment to the licence condition. To give effect to any income adjustment, the Authority must determine the value of the  $AFFTIRG_t^i$  and  $AFFTIRGDepn_t^i$  terms in the licence, but the values that they take do not appear within the licence - there is no change to the content of the licence, and consequently no requirement to invoke the statutory modification procedure. When a determination is made, the Authority must publish a notice stating the income adjustment allowance, giving the reasons for the determination.

#### *Future licence changes*

In addition to the changes described above, in the future, further licence changes will be necessary, in accordance with the provisions of the TIRG revenue restriction in the transmission licence.

The annual TIRG revenue restriction for relevant year  $t$ , for relevant project  $i$  is the sum of the following revenue streams:

1.  $IPTIRG_t^i$  – representing the annual preconstruction and contingency revenue allowance for the relevant TIRG project for relevant years  $t=p$  to  $t=-1$ ;
2.  $TIRGIncAd_t^i$  – representing the sum of one or more preconstruction and contingency revenue allowance adjustments for a TIRG income adjusting event as determined by the Authority;
3.  $FTIRG_t^i$  – representing the annual construction revenue for the relevant TIRG project for the period between relevant year  $t=0$  to  $t=n$ ;
4.  $ETIRG_t^i$  – representing the annual incentive revenue allowance for the relevant TIRG project for relevant years  $t=n+1$  to  $t=n+5$ , and
5.  $ATIRG_t^i$  – representing actual annual revenue allowance for the relevant TIRG project for relevant years  $t=n+6$  to  $t=n+20$ .

The average asset value adjustment ( $AFFTIRG_t^i$ ) and the adjustment to depreciation during construction ( $AFFTIRGDepn_t^i$ ) terms are a component of the  $FTIRG_t^i$  term above and apply during the construction period only.

Further adjustments will need to be made to the post construction revenue terms,  $ETIRG_t^i$  and  $ATIRG_t^i$ . These adjustments are effected by altering the average asset value for the life of the assets such that any return and depreciation is calculated on the correct basis for the post-construction period.

To do this, the Authority needs to determine the value of the adjustment factor to the average asset value for the relevant transmission project, represented by the term

SAFRTIRG<sup>i</sup> (a component of ETIRG<sup>i</sup><sub>t</sub>). This adjustment factor amends the asset value in accordance with the Authority's determination of AFFTIRG<sup>i</sup><sub>t</sub>. However, the SAFRTIRG<sup>i</sup> term is only relevant for the first five years after the project is completed (from relevant years  $t=n+1$  to  $t=n+5$ ). The Authority would not need to direct any change to SAFRTIRG<sup>i</sup> until after the relevant post-construction report has been received from the transmission licensee. Hence any determination of SAFRTIRG<sup>i</sup> will not take place as part of this determination process, but will follow upon completion of the project.

In addition to determining a value for SAFRTIRG<sup>i</sup>, the Authority would also need to determine a value for post construction revenues to apply to subsequent relevant years following relevant year  $t=n+5$ . The asset life agreed for the TIRG projects is 20 years, hence a determination for relevant years  $t=n+6$  to relevant year  $t=n+20$  is made using the ATIRG<sup>i</sup> term in the licence. The Authority would therefore need to determine the value of the actual annual revenue allowance, ATIRG<sup>i</sup><sub>t</sub>, which will enable efficiently incurred costs to be recovered by the licensee, and is required under the licence to do so by relevant year  $t=n+5$ .

If the Authority makes a determination that an asset value adjustment has occurred, the Authority will also need to publish further determinations for the purposes of revising ETIRG<sup>i</sup><sub>t</sub> and ATIRG<sup>i</sup><sub>t</sub> to reflect the revised post-construction revenue streams in due course.

### **Income Adjusting Event - Sloy**

In the first of the notices submitted to the Authority by SHETL on 31 March 2008, SHETL confirms that it considers an income adjusting event has occurred in relation to the project at Sloy. In its notice, SHETL states that this is due to the following factors which could not have been forecast at the time that the relevant allowances were set:

- Additional works required due to the planning application being for a development within a National Park;
- Lodging an appeal against the rejection of the planning application, and
- Adverse weather conditions affecting ground investigation works.

SHETL considers that the desktop assessment process which resulted in indicative project costs for the TIRG mechanism is a generic process and, as such, does not tailor the project build costs to the specific site conditions.

SHETL considers that, as a result of the above factors, additional pre-construction works have been required which have led to a material increase to the forecast pre-construction costs for environmental consultancy services, planning consultancy services and site ground investigations works. SHETL considers that additional pre-construction costs of £148,996 (in 2004 prices) have already been incurred in 2007-08 and requests that the Authority determines an income adjusting event that reflects these values. Specifically, SHETL proposes these costs to be recovered through a TIRGIncAd<sup>i</sup><sub>t</sub> income adjustment allowance of £159,531 (in 2004 prices) made in respect of relevant year  $t=-1$  (2007-08). This latter figure includes relevant adjustments which are necessary because of the operation of the allowed transmission owner revenue mechanism relating to the relevant shortfall of recovery in preceding years.

### **Asset Value Adjusting Event Notice - Sloy**

The second notice that was submitted by SHETL on 31 March 2008 notified the Authority that a TIRG asset value adjusting event has occurred in relation to the project at Sloy. SHETL considers that this relates to a relevant amendment to the scope of construction works that is necessary to comply with technical, engineering and planning constraints that have been identified during pre-construction work. These constraints, in particular, relate to practical difficulties associated with the site location which SHETL considers

were unavoidable due to environmental factors and increases in market costs of raw materials and labour. As a result, SHETL considers that there has been an increase in the average asset value due to increases in:

- Civil construction;
- Electrical installation;
- Supply of supergrid transformers, and
- Material and labour costs.

SHETL therefore proposes that an adjustment to the average asset value ( $AFFTIRG_t^i$  adjustment) and an adjustment to the value of depreciation during construction ( $AFFTIRGDepn_t^i$  adjustment) are allowed. SHETL considers that its forecast construction costs will rise from £7m over the 2 year period from 2008/09 to 2009/10, to a total of £11.7m over the same 2 year period - an increase of £4.7m. To reflect these additional construction costs, SHETL considers that the existing average asset value calculation in the licence should be altered by an average asset value adjustment consistent with the following table:

<b>Project costs (£ 000s) 2004/05 prices</b>	<b>2008/09</b>	<b>2009/10</b>
Average asset value during construction period – current licence	1,500	4,925
Average asset value during construction period – proposed revisions to licence	4,350	9,999
<b>Difference</b>	<b>2,850</b>	<b>5,074</b>

Therefore, SHETL requests that  $AFFTIRG_t^i$  should take the values for the years  $t=0$  and  $t=n$  (2008/09 and 2009/10) of £2,850,000 and £5,074,019 (in 2004/05 prices) respectively and that  $AFFTIRGDepn_t^i$  should take the value for the year  $t=n$  (2009/10) of £285,000 (in 2004/05 prices). Ofgem's July TIRG open letter consultation<sup>3</sup> sets out the details of the existing provisions and the values on which SHETL is requesting that the Authority make a determination to reflect the asset value adjusting event.

### **The July 2009 Consultation and the reasons for the Authority's determination**

In the July 2009 consultation, we provided detailed information relating to SHETL's submission, setting out a clear breakdown of the costs SHETL has incurred as a result of the change in scope of the pre-construction and construction costs associated with Sloy in the following areas:

- Environmental Consultants;
- Internal Team Costs;
- Legal Costs;
- Technical Consultants, and
- Other Costs.

Having analysed SHETL's submissions in these areas and received further information to support the inclusion of a number of cost areas that were not part of the 2006/07 notice, the Authority has determined that the costs incurred by SHETL were reasonable.

<sup>3</sup> Please see:

<http://www.ofgem.gov.uk/Networks/Trans/ElecTransPolicy/TIRG/Documents1/090706SloyIAEandAVAECon.pdf>

### *Income adjusting event determination*

For the Authority to determine that an income adjusting event has occurred in the pre-construction period, the Authority must be satisfied that three key criteria have been met:

1. That these costs have resulted in, or are expected to result in a material increase or decrease to the forecast preconstruction and contingency costs for the transmission investment project  $i$  for TIRG relevant years  $t=p$  to  $t=-1$ , compared to the allowance in Schedule C of the licence.
2. These costs have been, or are expected to be, efficiently incurred or saved.
3. These costs cannot otherwise be recovered under the TIRG revenue allowance provided under this condition.

#### *Criterion 1*

The additional pre-construction costs SHETL has incurred in relation to the change in scope of the pre-construction works for Sloy meets the Authority's view of what is material. Whilst there is no definition in Special Condition J3 of what constitutes a material increase or decrease, the increase in the pre-construction costs is around 1.4% of the total construction costs of Sloy. We consider that this cost is material for the purpose of determining whether an income adjusting event has occurred.

#### *Criterion 2*

Our assessment of the additional pre-construction costs which have been identified by SHETL and the responses to our consultation confirm that these costs are reasonable. We note the evidence and conclusion set out in the report produced by SKM for SHETL, that the relevant incremental costs falling within the preconstruction category relate to ground investigation and environmental consultants. We also note that the original design of the substation was specified in 2004, and was based on a desktop assessment. Clearly this raises questions as to the extent to which it is reasonable to rely on such assessments in the future.

In our assessment of criterion 2 we have requested further information on the justification for relevant contractors and services; the tender process adopted; the competitiveness of the costs charged compared to market rates, and the potential for efficiency savings. Having considered this information we have formed our view based on the information provided.

We are satisfied with the tender process used in selecting external consultants and the competitive nature of the contracts signed by SHETL. We have not identified any areas of costs where we consider that there could have been savings made if an alternative approach had been adopted, and did not receive any evidence to the contrary from respondents. Therefore, we consider that SHETL's request for funding is appropriate and that criterion 2 is met.

#### *Criterion 3*

SHETL has not been funded for the additional pre-construction costs as a result of a change in scope of the works required, nor the associated costs of a change in the scope of the construction costs. We therefore considered that the costs incurred by SHETL cannot otherwise be recovered under the TIRG revenue allowance and that criterion 3 is met.

### *Asset Value Adjusting Event determination*

For the Authority to determine that an asset value adjusting event has occurred in the pre-construction period, the Authority must be satisfied that three key criteria have been met:

1. That these costs are expected to result in a material increase or decrease to the average asset value for the transmission investment project *i* for the TIRG relevant years  $t=0$  to  $t=n$ , compared to the allowance in Schedule C of the licence.
2. These costs are expected to be efficiently incurred or saved.
3. These costs cannot otherwise be recovered under the TIRG revenue allowance provided by this condition.

#### *Criterion 1*

The additional construction costs SHETL has incurred in relation to the change in scope of the construction works for Sloy meets the Authority's view of what is material. Whilst there is no definition in Special Condition J3 of what constitutes a material increase or decrease, the increase in the pre-construction costs of £4.7m is an increase of 67% compared to the original allowance of £7m for project Sloy. We consider that this cost is material for the purpose of determining whether an asset value adjusting event has occurred.

#### *Criterion 2*

As for the income adjusting event, our assessment of the asset value adjusting event has focused on the justification for relevant contractors and services; the tender process adopted; the competitiveness of the costs charged compared to market rates, and the potential for efficiency savings.

We have assessed all of the cost items submitted by SHETL. We have conducted a detailed assessment of SHETL's submissions, requesting further updates as relevant contracts are signed. Since our July consultation, the provisional sum of £500,000 has now been replaced with a final contract cost for civil works and access. As a consequence, the combined costs for civil works and access have fallen by £167,000 to £6,450,000. We had previously requested views as to whether or not the original £500,000 provisional sums figure was appropriate as we had some concerns, and are content that these concerns have now been resolved.

We confirm our position from the July consultation, namely, that we are satisfied with both the tender process used in selecting external consultants and the competitive nature of the contracts signed by SHETL. We note that there has been "a considerable increase in electrical equipment costs due to a rise in raw material prices and also buoyant conditions in the heavy electrical equipment markets due to an increasing demand for electrical power equipment". However, on the basis of our review, the views of the independent auditors SKM and the responses to our consultation, we consider the costs to be reasonable.

During the process, any cost savings identified by Ofgem and SHETL have been factored into the construction costs for Sloy. We have not identified any further areas where we consider that there was scope for further savings had an alternative approach been adopted, and we did not receive any evidence to the contrary from respondents. Therefore, we consider that SHETL's request for funding is robust and that criterion 2 is met.

### *Criterion 3*

We note that the original design of Sloy from 2004 is not the same as that which is now required for the site, and we acknowledge the views of SKM which confirm this conclusion. We also note that it is necessary to redesign the scheme to comply with the technical, engineering and planning constraints identified during the pre-construction period.

Because the allowance provided to SHETL as part of the original TIRG process was based on the original design of Sloy, and is not sufficient to cover the revised scope of the works we consider that it is appropriate for the incremental construction costs to be recovered via the asset value adjusting event mechanism. The additional costs cannot be recovered via another mechanism.

### **Responses to the July 2009 consultation**

The Authority received one response to the July 2009 consultation. Whilst agreeing that the proposed adjustments were consistent with the licence requirements, the respondent stated that SHETL should have taken fuller account of likely site-specific conditions and not based the initial estimate on materially incorrect assumptions. The respondent considers this would have led to a more realistic forecast of the level of pre-construction costs and the scope of subsequent construction works required and that it would be appropriate for Ofgem to make some downward adjustment to the additional revenues requested.

This respondent also noted its concerns about the inclusion of highly aggregated provisional and contingent sums in the cost information submitted by SHETL, and stated its preference for detailed line items and the use of actual costs in determining allowances to ensure information transparency.

We accept that SHETL's notice raises questions about the extent to which it will be appropriate to rely on desktop assessments in comparable situations in the future. However, having completed an assessment of the case presented by SHETL and having taken on board the views of consultants as summarised above, we consider that there is no basis for the Authority not to make a determination allowing SHETL to recover the costs it has requested.

### **The Authority's Determination**

The Authority takes the view that all relevant criteria have been met, and the provisions of Special Condition J3, paragraphs 4 and 6, have also been adhered to. Following consideration of the responses to the July consultation, the information submitted supports the licensee's request to recover the incremental costs associated with the Sloy Income Adjusting Event and Asset Value Adjusting Event, such that the financial position and performance of the licensee is, insofar as is reasonably practicable, the same as if that TIRG income adjusting event had not occurred.

For the reasons set out in this document, and in accordance with paragraph 4 of Special Condition J3 – Restriction of transmission charges: Transmission Investment for Renewable Generation, the Authority determines that a TIRG income adjusting event has occurred in respect of the transmission investment project Sloy and that the term  $TIRGIncAd_t^I$  for transmission investment project Sloy for year  $t=-1$  (2007/08) shall be £159,531 in 2004/05 prices.

In addition the Authority also determines in accordance with paragraph 6 of Special Condition J3 that a TIRG asset value adjusting event has occurred in respect of the transmission investment project Sloy and that the term  $AFFTIRG_t^I$  should take the value for the years  $t=0$  and  $t=n$  (2008/09 and 2009/10) of £2,850,000 and £5,074,019 (in

2004 prices) respectively and that the  $AFFTIRGDepn_t^I$  adjustment should take the value for the year  $t=n$  (2009/10) of £285,000 (in 2004/05 prices).

If you have any queries in relation to the issues raised in this letter, please feel free to contact David Hunt on 020 7901 7429 or via email at [david.hunt@ofgem.gov.uk](mailto:david.hunt@ofgem.gov.uk).

Yours faithfully,

A handwritten signature in black ink, appearing to read 'Stuart Cook', with a long horizontal line extending from the end of the signature.

Stuart Cook  
**Senior Partner - Transmission and Governance**

**For and on behalf of the Authority**